

LEGISLATIVE REPORT ON SUICIDE DEATHS

[Utah Code Section 26-4-28]

This report is prepared by the Bureau of Forensic Toxicology, Utah Public Health Laboratories, Utah Department of Health as per Utah Code Section 26-4-28. Additional support was received from the Office of Epidemiology, Utah Department of Health.

Background:

The Bureau of Forensic Toxicology (BFT) performs qualitative and quantitative chemical analyses of tissues and body fluids to determine the presence of drugs and other toxic substances. Samples are submitted to the laboratory by the Office of the Medical Examiner (OME) and by law enforcement agencies statewide.

Toxicology results are used to:

- assist the OME in determining cause and manner of death (per [Utah Code Section 26-4-7](#)); and
- provide information in cases involving suspects driving under the influence (DUI) of alcohol and/or drugs (per [Utah Code Section 41-6a-502](#)), automobile homicides (per [Utah Code Section 76-5-207](#)), and other crimes.

Findings:

1. Of the 380 medical examiner (OME) cases involving suspected suicides in FY2008, there were no drugs identified in 52% of the cases. In 179 cases, there were one or more drugs identified (see [Table 1](#)). The specific drugs included in each testing panel are listed in [Appendix A](#).

Table 1: Summary of drug findings in FY2008 OME cases involving suspected suicides

Drug Panel	Number of cases	Percent of total cases
No drugs identified	201	52
Volatiles identified	107	28
Drugs of Abuse identified	43	11
Prescription and OTC Drugs identified	85	22

In 107 cases (28%), there were volatile compounds identified: ethanol (103 cases), acetone (2 cases), isopropanol (1 case), and methanol (1 case). Commonly abused illicit drugs were identified in 43 cases (11%): cocaine (12 cases), amphetamine/methamphetamine/other amines (8 cases), heroin/morphine (23 cases), and THC (3 cases). In 85 cases (22%), there were prescription, over-the-counter (OTC), and other drugs identified; a summary of the specific drugs is found in [Table 2](#).

Table 2: Summary of drugs identified in the prescription/over-the-counter (OTC) drug panel test on FY2008 OME cases involving suspected suicides

Diphenhydramine	15
Hydrocodone	10
Alprazolam	14
Diazepam	11
Oxycodone	12
Carisoprodol	2
Meprobamate	7
Nordiazepam	9
Zolpidem	9
Tramadol	7
Amitriptyline	7
Methadone	4
Nortriptyline	1
Promethazine	4
Cyclobenzaprine	3
Doxylamine	2
Trazodone	2
Phenytoin	2
Propoxyphene	2
Quetiapine*	2
Bupropion*	1
Citalopram*	1
Desipramine*	1
Dextromethorphan	2
Diethyl Ether*	0
Diltiazem*	1
Hydroxybupropion*	1
Imipramine*	1
Lamotrigine*	1
Norpropoxyphene*	1
Oxcarbazepine*	1
Pentobarbital*	1
Secobarbital*	1
Sertraline*	1
n-Heptane*	1

* The BFT does not have the equipment necessary to quantify these drugs. Samples containing these drugs must be sent to an external reference lab for confirmation testing.

- The BFT does not have the equipment necessary to quantify many novel drugs, including those listed below:

- Anafranil® (clomipramine)

- Celexa® (citalopram)
- Effexor (venlafaxine)
- Lamictal® (lamotrigine)
- Luvox® (fluvoxamine)
- Prozac® (fluoxetine)
- Seroquel® (quetiapine)
- Wellbutrin®/Zyban® (bupropion)
- Zoloft® (sertraline)

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Appendix A: Summary of the BFT drug panels

1. Volatiles panel: ethanol, methanol, acetone, isopropyl alcohol
2. Drugs of Abuse panel:

Drugs of Abuse Panel	Drugs
Amphetamines	Amphetamine
	Methamphetamine
	MDMA/MDA (Ecstasy)
	Methylphenidate
	Phentermine
	Pseudoephedrine/ Ephedrine
Cannabinoids	THC (Marijuana)
	THC-COOH (Marijuana metabolite)
Cocaine	Cocaine
	Benzoyllecgonine (Cocaine metabolite)
Opiates	Heroin
	Morphine

3. Prescription Drug panel:

Prescription Drug Panel	Drugs
Sedative Hypnotics	Butalbital Carbamazepine Carisoprodol Meprobamate Phenobarbital Phenytoin
Tranquilizers	Diazepam Nordiazepam Chlordiazepoxide Temazepam Zolpidem Alprazolam
Antidepressants	Amitriptyline Nortriptyline Trazodone

Narcotic Analgesics	Codeine Meperidine Methadone Oxycodone Tramadol Hydrocodone
Alkaloids and Amines	Chlorpheniramine Cyclobenzaprine Diphenhydramine Doxylamine Promethazine